WER SRI LANKA - 2011

Alcohol misuse-Magnitude of the problem and role of the health sector

Alcohol misuse is a major contributor to ill health globally . It causes 1.8 million deaths (3.2% of the total) and a loss of 58.3 million (4% of the total) of Disability -Adjusted Life Years.

It causes numerous health and social problems to the individual, the family, society and the country as a whole. Changing cultural trends make consumption of alcohol common and more acceptable. Sri Lanka too is experiencing rapidly escalating problems as a result of recent increase in alcohol consumption.

Alcohol misuse is related to a wide range of physical, mental and social harms. Alcohol affects almost all the organs in the human body. Furthermore alcohol consumption is linked to more than 60 diseases. Adverse effects of alcohol depend on average volume and the pattern of consumption as well as on the mediating mechanisms- biochemical effects, intoxication and dependence.

Excessive alcohol consumption has been shown to have damaging effects on liver, pancreas, gastrointestinal tract, heart and nervous system causing alcoholic cirrhosis, alcoholic gastritis, alcoholic cardiomyopathy and alcoholic polyneuropathy.

It is also associated with various carcinomas (see below), hypertension, male sexual dysfunction and bone diseases. Persons with heavy drinking patterns (6 or more drinks at a time) were found to have a higher mortality from all causes compared to drinkers without heavy drinking patterns.

Table- Common alcohol related psychological and social problems
(Source: adapted from White and Clare 2005)

Psychological	Social
Memory disturbances	Family Problems
Personality disturbances	Child abuse
Impaired reaction time	Road traffic accidents
Attempted suicide	Delinquency and crime
Intoxication	Marital and sexual dysfunction
Depression	Employment problems and absenteeism
Delirium tremens	Financial difficulties
Pathological jealousy	
Dependence	

Problems due to alcohol use either can occur acutely, for example, subsequent to a single bout of heavy drinking episode (binge drinking) or chronically, following recurrent use of alcohol over a long period of time. Acute adverse effects can take place on top of a chronic adverse outcome.

Global situation

WHO estimates that there are about two billion people worldwide who consume alcoholic beverages and 76.3 million with diagnosable alcohol use disorders.

It is estimated that about 20–30% of oesophageal cancer, liver cancer, cirrhosis of the liver, homicide, epileptic seizures, and motor vehicle accidents throughout the world are caused by alcohol.

This burden is not equally distributed among the countries. Alcohol consumption is the leading risk factor for disease burden in developing countries and the third largest risk factor in developed countries.

Situation in Sri Lanka

Nation wide prevalence studies on alcohol use are limited in Sri Lanka.

A community based study in a suburb of Colombo classified 2.9% of males above 25 years as alcoholics. The highest prevalence rate of alcohol use was in the 45-54 years age group.

Males have shown a greater affinity towards the habit of alcohol misuse than females. In a study with a nationally representative sample, 6.4% of males above 15 years old were current alcohol users. The majority of male drinkers got used to drinking when they were 10 – 24 years old, while those who got used to drinking at an early age continued to be heavy drinkers.

A study conducted in Gampaha district classified 37.7% of men and 1.6% of women as regular drinkers. Among men 15.2% were drinking every other day or more frequently. The proportion of men drinking more than 21 units per week, which was considered as the safe limit for men, was 13.2%. Another study found that hazardous drinkers and alcohol use disorders were 31.4% and 24.5% respectively in married men.

Hospitalization for diseases of the liver has shown a substantial increase, especially during years 2000 to 2003. Eighty four percent of the cases treated for liver diseases were related to alcoholism. Alcoholic liver disease have accounted for 64% of the gastrointestinal deaths in 2003 (MoH).

Alcohol has been a major contributor for road traffic accidents. A study on three wheeler accidents found that almost 90% of the drivers and one third of pedestrians were found to be under influence of alcohol at the time of the accident. The number of people involved in road traffic accidents determined to be under influence of alcohol had increased from 1494 in 1984 to 5667 in 1999.

Analysis of admission to Colombo North General Hospital showed that one fourth of the injured cases due to physical assault were under influence of alcohol at the time of the assault. An association between domestic violence and alcohol consumption was shown in another study.

The majority of people who misuse alcohol are undiagnosed. They present with various problems which are not directly connected to their alcohol consumption. Persons with alcohol dependence are prone to more serious adverse outcomes but most adverse outcomes are seen among the non dependant users as their numbers are more. Therefore both categories should be targeted for an effective out come.

Screening approaches for alcohol misuse

The patients' history is the most valuable source of information concerning alcohol use.

A four step process was described by National Institute on Alcohol Abuse and Alcoholism (1995) for the diagnosis of alcohol misuse.

First step is to ask all the patients about current and past alcohol use. In step two, a detailed history regarding quantity and frequency of use should be obtained to identify the pattern of drinking.

Step three involves the use of standardized screening questionnaires [e.g. Alcohol Use Disorder Identification Test (AUDIT) questionnaire]
Finally, in step four, based on the results of the screening, more specific questions are asked from the patients with the aim to look for complications of alcohol use and to obtain details of previous treatment.

Role of the doctor on detection and management of alcohol misuse

Patients are receptive to information they receive from doctors.
In addition, early detection and a structured intervention conducted by a person who can understand and empathize people who misuse alcohol have been shown to make a significant change in the drinking habit and lead to a reduction in alcohol consumption. Thus doctors are the ideal group of professionals to screen and intervene in alcohol misuse.

Psychological supportive measures

Adverse effects related to alcohol misuse depend on the amount, frequency and the context of consumption. Therefore, successful identification at an early stage can be a helpful intervention in its own right. This can be followed by providing information on safe drinking levels, recommending to cut down or to abstain if indicated, provision of simple psychological support and advice regarding associated problems.

Advice about the effects of alcohol, patient education and a prescription -"Cut down on your drinking"- were associated with significantly greater reductions in drinking among both men and women.
Counselling has been successful in reducing alcohol related problems. It involves feedback on the consumption, education on the undesirable effects of alcohol, agreeing on drinking goals and motivational therapy.

Involvement of the family and self support groups are also considered as important aspects of the psychological management.

Brief Intervention

This is a method that can be used by health care worker to identify and minimize alcohol related harm in patients. The patient is categorized into one of four risk zones according to the score obtained by him or her to the AUDIT questionnaire and an appropriate treatment is given.

The FRAMES acronym (feedback: review problems experienced because of alcohol; responsibility: changing alcohol use is the patient's responsibility; advice: advise to cut down or abstain; menu: provide options for changing behaviour; empathy: use an empathic approach; self-efficacy: encourage optimism about changing behaviour) summarizes a counselling strategy commonly used in brief interventions.

Drug treatment

Drugs are used alone or with combination with other methods, such as counselling.

Disulfiram has been used for many years as an aversive drug to discourage alcohol use, causing unpleasant reactions when consumed, but success of it depends on the motivation of the person to be compliant The opioid antagonist Naltrexone reduces the frequency of drinking as well as the risk of relapse into heavy drinking. Though it does not help to maintain abstinence, the effectiveness can be increased by combining with counselling.

Alcohol withdrawal

Clinical features of withdrawal may range from tremor, sweating and vomiting to delirium tremens. Therefore, it is imperative to identify the severe forms of alcohol withdrawal states which require hospitalization and manage them according to guidelines. Other forms can be managed by a short course of a neuro-suppressant such as a benzodiazepine in an out-patient department.

Summery
Alcohol is a major problem that creates health , social and economic problems to the individual, the family, society and the country. The enormity of the problem is well established by several studies. Doctors' simple advice to the patients to cut down on the alcohol consumption has shown to be effective. In addition counselling and psychological support, drug treatment can be utilised when necessary.

Sources

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Table 1: Vaccine-preventable Diseases & AFP   23rd– 29th April 2011(17th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2011	Number of cases during same week in 2010	Total number of cases to date in 2011	Total number of cases to date in 2010	Difference between the number of cases to date in 2011 & 2010
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	02	00	00	01	00	01	00	00	00	04	00	28	29	- 03.4 %
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	05	00	00	00	00	00	01	00	00	06	01	40	33	+ 21.2 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	08	08	0.0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	13	07	+ 85.7 %
Tuberculosis	49	11	17	25	15	18	00	30	47	213	278	2678	2997	

Table 2: Newly Introduced Notifiable Disease   23rd– 29th April 2011(17th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2011	Number of cases during same week in 2010	Total number of cases to date in 2011	Total number of cases to date in 2010	Difference between the number of cases to date in 2011 & 2010
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	11	04	23	01	09	09	03	03	13	76	53	1720	1349	+ 21.4 %
Meningitis	00	00	00	01 JF=1	00	02 KN=1 PU=1	00	01 MO=1	02 RP=2	06	35	314	520	- 11.1 %
Mumps	06	03	07	06	15	4	2	2	3	50	20	729	290	+ 11.1 %
Leishmaniasis	00	00	03 MT=2 HB=1	00	01 TR=1	00	03 AP=3	00	01 RP=1	08	10	238	116	+ 69.9 %

Key to Table 1 & 2
Provinces: **W**: Western, **C**: Central, **S**: Southern, **N**: North, **E**: East, **NC**: North Central, **NW**: North Western, **U**: Uva, **Sab**: Sabaragamuwa.
DPDHS Divisions: **CB**: Colombo, **GM**: Gampaha, **KL**: Kalutara, **KD**: Kandy, **ML**: Matale, **NE**: Nuwara Eliya, **GL**: Galle, **HB**: Hambantota, **MT**: Matara, **JF**: Jaffna,
        KN: Killinochchi, **MN**: Mannar, **VA**: Vavuniya, **MU**: Mullaitivu, **BT**: Batticaloa, **AM**: Ampara, **TR**: Trincomalee, **KM**: Kalmunai, **KR**: Kurunegala, **PU**: Puttalam,
        AP: Anuradhapura, **PO**: Polonnaruwa, **BD**: Badulla, **MO**: Moneragala, **RP**: Ratnapura, **KG**: Kegalle.
Data Sources:
Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps.
Special Surveillance: Acute Flaccid Paralysis. Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008.

Dengue Prevention and Control Health Messages

Reduce, Reuse or Recycle the plastic and polythene collected in your home and help to minimize dengue mosquito breeding.

Table 4: Selected notifiable diseases reported by Medical Officers of Health

23rd– 29th April 2011(17th Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	138	1562	3	74	2	4	2	60	1	8	8	147	0	4	1	19	1	2	92
Gampaha	58	557	7	46	1	7	1	20	1	9	3	256	0	13	3	34	0	2	87
Kalutara	33	286	3	57	0	3	0	25	0	13	6	99	0	0	1	4	0	0	92
Kandy	19	144	15	151	0	4	0	14	0	24	1	51	1	41	0	20	0	0	91
Matale	6	62	3	48	0	2	0	9	0	6	6	81	0	8	0	4	0	0	100
Nuwara	3	39	10	124	0	2	4	20	0	12	0	19	1	31	0	6	0	0	85
Galle	18	106	0	28	0	2	0	2	0	5	5	52	0	14	0	7	0	0	84
Hambantota	10	106	0	15	00	3	0	2	0	7	12	240	0	22	1	1	0	0	75
Matara	14	116	1	25	0	1	0	5	1	2	6	140	2	24	0	9	0	1	100
Jaffna	3	132	5	62	0	3	6	113	0	11	0	2	6	165	0	12	0	2	82
Kilinochchi	0	27	0	8	0	3	0	5	0	4	0	1	0	5	0	2	0	0	25
Mannar	0	18	0	7	0	0	0	9	64	64	0	11	0	27	0	1	0	0	40
Vavuniya	0	36	0	17	0	9	0	5	0	3	0	31	0	2	0	1	0	0	50
Mullaitivu	1	6	0	21	0	1	0	1	0	0	0	3	0	1	1	2	0	0	50
Batticaloa	41	339	43	243	0	3	0	3	0	8	1	15	0	0	0	2	0	3	71
Ampara	4	38	3	40	0	0	0	7	0	20	1	44	1	1	0	6	0	0	57
Trincomalee	7	73	27	318	0	0	0	1	1	7	3	57	1	3	0	4	0	0	82
Kurunegala	12	199	10	110	0	5	2	43	0	26	13	1108	0	39	0	13	0	0	87
Puttalam	7	210	1	71	0	0	0	9	0	1	6	72	0	7	1	4	0	1	67
Anuradhapu	2	70	0	46	0	1	0	2	2	10	2	184	0	12	0	4	0	0	68
Polonnaruw	1	90	1	20	0	1	1	6	0	8	2	57	0	1	0	5	0	0	71
Badulla	15	92	7	57	0	4	1	21	0	5	2	26	2	18	0	19	0	0	87
Monaragala	9	89	2	24	0	2	0	16	0	6	12	113	3	37	1	33	0	0	73
Ratnapura	25	227	5	187	0	3	2	18	0	11	11	210	2	19	0	19	0	0	94
Kegalle	14	117	2	36	2	9	5	29	0	12	11	126	0	9	2	34	0	0	91
Kalmunai	2	14	29	190	0	0	0	0	1	11	0	3	0	2	0	2	0	0	100
SRI LANKA	**437**	**4755**	**177**	**2025**	**05**	**72**	**24**	**445**	**71**	**293**	**111**	**3148**	**19**	**505**	**11**	**267**	**01**	**11**	**83**

Source: Weekly Returns of Communicable Diseases WRCD).
*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.
**Timely refers to returns received on or before 29th April, 2011 Total number of reporting units =320. Number of reporting units data provided for the current week: 266
A = Cases reported during the current week. **B** = Cumulative cases for the year.

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to **chepid@sltnet.lk.**

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